

## 524 CMR: BOARD OF ELEVATOR REGULATIONS

### 524 CMR 25.00: BUILDERS' ELEVATORS

#### Section

- 25.01: Definition
- 25.02: Supporting Structures
- 25.03: Protection of Openings
- 25.04: Car Construction
- 25.05: Ropes
- 25.06: Signals
- 25.07: Inspection
- 25.08: Riders

#### 25.01: Definition

The term builders' elevators shall mean elevators which have been erected for temporary use and built in or adjoining a building under construction or alterations.

#### 25.02: Supporting Structures

- (1) The supporting structures of builders' elevators shall be enclosed the entire height with heavy mesh wire except at loading or unloading platforms or landings. The wire enclosure shall have not greater than two inch mesh, and shall be securely fastened to the shaftway cross- bracing and struts.
- (2) Guide rails shall be securely fastened in position and of such strength and design that the guides and their fastenings shall not deflect between their supports to cause the guide rails to spread causing failure of the safety dogs when applied to retard the car.
- (3) No belt or chain driving machine shall be used to drive any power elevator.

#### 25.03: Protection of Openings

- (1) Inside landing openings of all such elevators shall be protected to a height of five feet and full width of the opening by a door or gate either solid or perforated; and if perforated it shall reject a ball two inches in diameter.
- (2) The outside landing opening shall be protected to its full height and width by a gate or door, either solid or slatted, and if slatted it must reject a ball two inches in diameter. The lower bar shall be not more than two inches above the landing sill.
- (3) An electric contact shall be installed on each movable bar or gate which will act as a signal to the operator when the bar or gate is open. All contacts shall be kept in good operating conditions.

#### 25.04: Car Construction

- (1) The car frame or sling of all such elevators shall be constructed and designed to adequately and safely sustain the maximum load to be imposed upon it. Where wood is used for the car floor, it shall be sound and at least two inches in thickness and shall be securely fastened and braced to the stiles. It likewise shall be capable of sustaining the maximum load imposed upon it. If the floors of cars are covered with metal they shall have a non-slip surface.
- (2) Builders' elevators shall be equipped with a car safety device which shall bring the car to rest if the hoisting ropes become slack or break. If any part of the car of such elevators, including the car frame, sling or floor, is of other than steel construction, the elevator shall be equipped with undercar safeties.

## 524 CMR: BOARD OF ELEVATOR REGULATIONS

### 25.05: Ropes

(1) Ropes for builders' elevators shall not be less than ½" in diameter. They shall be of steel and shall possess a factor of safety of at least eight. A metal tag shall be placed on each rope, at a point readily accessible to inspectors, showing the size and material of the rope, including the maximum safe load and the date of installation.

(2) The ends of hoist and counterweight ropes shall be fastened by spliced eyes, individual tapered sockets, open type wire rope clips, open wedge type sockets, or drop forged safety clips. Where spliced eyes are used, a thimble connection shall be installed in the eye. Where tapered sockets are used, the ends of each strand shall be filled with zinc or babbitt. Where clips are used the fastenings shall consist of not less than three approved clips spaced six rope diameters apart on each rope. "U" bolt type clips shall be installed with the "U" bolt on the dead end of the rope. Splicing of ropes is prohibited. "U" bolt type clips shall not be used to fasten spare ropes stored to permit extended travel of the car.

NOTE: Drop forged safety clips having two halves that are identical and providing a bearing surface for both the live and dead ends of the rope and providing a full bearing surface against the rope and securely fastened shall be used to fasten the spare rope for extended travel.

(a) Wire enclosure for builders' elevators installed outside a building or structure where specified shall not be required to be enclosed unless a staging is installed or located within ten feet of the elevator hoistway. The car shall be totally enclosed on all unused sides and top and each car opening shall be provided with a gate or door equipped with an electric contact provided the elevator is operated by electric power. Where the elevator is operated by other than electric power, the gate or door contact may be omitted. The hoistway shall be totally enclosed with a solid enclosure not less than seven feet high at the bottom terminal landing.

(b) The car gates are to be not less than six feet high and shall guard the full width and height of the opening.

(3) Ropes and fastenings shall be maintained in safe operating conditions.

(4) Ropes shall be prevented from "overriding" on the drum by use of a swivel "snatch block" or deflector sheave, which will permit proper wrapping of the rope on the drum. All "snatch blocks" or deflector sheaves shall be securely fastened to the legs or base of the supporting structure.

### 25.06: Signals

An audible, manually operated signal system, which can be operated from each floor landing, shall be used on all builders' elevators. The system shall include and be connected to a gong which shall be not less than six inches in diameter and shall be located in the machine room. The system shall be kept in good operating condition.

### 25.07: Inspection

(1) Builders' elevators shall not be put in use until written approval has been received from the department or inspector having jurisdiction. The approval shall be posted in a conspicuous place in the enclosure housing the hoisting mechanism.

(2) A contract-load test shall be made by a licensed elevator mechanic and witnessed by a state, city, or town authorized inspector of every builders' elevator before the elevator is placed in regular service. This test shall be made with contract load in the car. The brakes, limit switches, buffers, car safety, and speed governor shall be caused to function in each test, and approval of any elevator shall be granted only upon satisfactory completion of such test.

A safety test shall be made by a licensed elevator mechanic and witnessed by a state, city, or town authorized Inspector after each extension of travel before the elevator is again placed in regular service.

524 CMR: BOARD OF ELEVATOR REGULATIONS

25.08: Riders

No person shall be allowed to ride on builders' elevators.

REGULATORY AUTHORITY

524 CMR 25.00: M.G.L. c. 143, § 69.

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